

US-PAT-NO: 6339567

DOCUMENT-IDENTIFIER: US 6339567 B1

TITLE: Method of and apparatus for optical
information reproduction

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Brief Summary Text - BSTX (66):

The phase difference detecting means may be configured to detect, by phase comparison means, the phase difference between the two signals, and convert, by a charge pump and a low-pass filter, the phase difference into a voltage, with the gain for conversion to the voltage being varied by variation of the drive current to the charge pump or the gain of the low-pass filter.

Detailed Description Text - DETX (27):

The phase difference-to-voltage conversion means 66 may be of any configuration as long as it can convert the time information, which is a phase difference, to a voltage signal. In general it is possible to configure it with a low-pass filter (hereinafter abbreviated as LPF) smoothing the input. As another configuration, a combination of a charge pump and an LPF has come to be used in practice.

Claims Text - CLTX (22):

5. The optical information reproducing apparatus as set forth in claim 1, wherein said phase difference detector detects, by phase comparison, the phase difference between the two signals, and converts, by a charge pump and a

low-pass filter, the phase difference into a voltage, with the gain for conversion to the voltage being varied by variation of the drive current to the charge pump or the gain of the low-pass filter.

Claims Text - CLTX (86):

16. The optical information reproducing apparatus as set forth in claim 11, wherein said phase difference detector converts the detected phase difference into a voltage using a charge pump and a low-pass filter, the gain for conversion to the voltage being varied by variation of the drive current to the charge pump or the gain of the low-pass filter.

Current US Original Classification - CCOR (1):
369/44.35

Current US Cross Reference Classification - CCXR (1):
369/44.29

Current US Cross Reference Classification - CCXR (2):
369/44.41